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derpest

A Highly Contagious
Virus Disease of Cattle

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CURRENT RECORDS

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Rinderpest

A Highly Contagious Virus Disease of Cattle

In susceptible populations, rinderpest, or cattle plague, is an acute, virus disease of ruminants. All domestic and most wild ruminants are susceptible, especially cattle and buffalo. Swine may act as carriers to cattle, however swine only develop a slight fever with the disease. Humans are not known to be affected.

The disease causes inflammation, hemorrhage, necrosis and erosion in the digestive tract, and a wasting, frequently bloody diarrhea.

Rinderpest can vary widely in its severity, causing 100 percent infection and 90 percent death losses in many herds. Cattle in the United States are completely susceptible to this foreign disease. A rinderpest outbreak in this country could cause serious livestock losses if not quickly detected and eradicated. Economic losses from an uncontrolled outbreak could be devastating.

Since ancient times, rinderpest has been the world's most devastating disease of cattle and, as such, it has had a major influence on man's food supply. Before 1949, this disease was responsible for the loss of over 2 million cattle and buffalo each year. Rinderpest's serious effects continued unchecked until effective vaccines were developed. It is only through the persistent, large-scale use of these vaccines that cattle raising is profitable today in much of Africa, the Middle East, and Asia.

Where It Occurs:

At present, rinderpest exists in many parts of Asia and the Far East. In Africa, where it has long been a serious plague, it is largely under control due to extensive vaccination. Prior to 1921, epidemics occurred in Europe, but that area is now rinderpest free. The disease has invaded the Western Hemisphere only once, when it was introduced into Brazil in the 1920's. This outbreak was quickly eradicated.

How It Spreads:

Rinderpest spreads from infected to healthy animals primarily by direct animal contact. The commercial shipment of live animals has introduced the disease into 33 previously rinderpest-free countries since 1774. Rinderpest can also spread indirectly through contact with secretions, excretions, or meat from infected animals. Eating virus-contaminated feed or water can transmit the disease, but a healthy animal is more likely to get rinderpest by inhaling virus-laden aerosols from infected animals.

The virus can spread 1 to 2 days before an animal is obviously ill, and can continue to spread throughout



Rinderpest-infected animal depicting weakness, emaciation and diarrhea.



This animal shows the eye, nose, and mouth discharge associated with rinderpest.



Necrotic lesions on inside of lower lip.



clinical illness. Cattle which recover are not known to remain carriers of the virus.

Rinderpest-infected animals show a wide range of clinical signs. The disease may vary from inapparent to highly acute. Most susceptible cattle show some signs 3 to 9 days after exposure to the virus. There is usually an abrupt rise in temperature to 104° or 105° F. followed by weakness. In dairy cattle, milk production diminishes rapidly. Infected animals usually develop several of the following signs:

- Depression
- Loss of appetite
- Discharges from the nose and mouth
- Erosions of the mouth and gums
- Excessive thirst
- Bloody diarrhea
- Black or bloodstained feces with mucous shreds
- Rapid loss of weight
- Coughing and difficult breathing
- Rough and soiled hair coat

In about 90 percent of the cases, death usually comes 5 to 10 days after the disease first appears.

Post Mortem Lesions:

Animals which have died from rinderpest usually show the effects of severe diarrhea. They are dehydrated, emaciated, and the hair coat is rough and soiled. Significant post mortem lesions may include:

- Necrotic, eroded patches of lymph tissue in the small intestine (Peyer's patches).
- Erosions on the inner surface of the lower lip, gum, cheeks, and underside of the tongue.
- Hemorrhage and erosion of the omasum, abomasum, and intestine.

Confusion With Other Diseases:

Rinderpest may be confused with several diseases that occur in the United States, including bovine virus diarrhea (BVD or mucosal disease), malignant catarrhal fever (MCF), infectious bovine rhinotracheitis (IBR), bluetongue, and enzootic hemorrhagic disease (EHD) of deer. Animals with these diseases may also develop diarrhea, erosions in the mouth, and loss of weight.

The clinical similarities among rinderpest, BVD, MCF, IBR, bluetongue, EHD of deer, and some strains of foot-and-mouth disease (FMD) virus necessitate laboratory support when a case of rinderpest is suspected. Delay in the diagnosis of rinderpest could be very costly in the United States where there are susceptible wild ruminants as well as susceptible livestock.

Prevention:

Prompt reporting of suspicious conditions resembling rinderpest is the key to preventing the spread of rinderpest should it enter the United States. If you suspect rinderpest in your herd, contact your local veterinarian or a State or Federal animal health official immediately. A trained foreign animal disease diagnostician will be sent free of charge to examine and test any animal suspected of having the disease.

To prevent rinderpest from entering the United States, cattle may not be imported from countries with rinderpest. In addition, *all* cattle, regardless of country of origin, are inspected at ports of entry and, when appropriate, quarantined and tested.

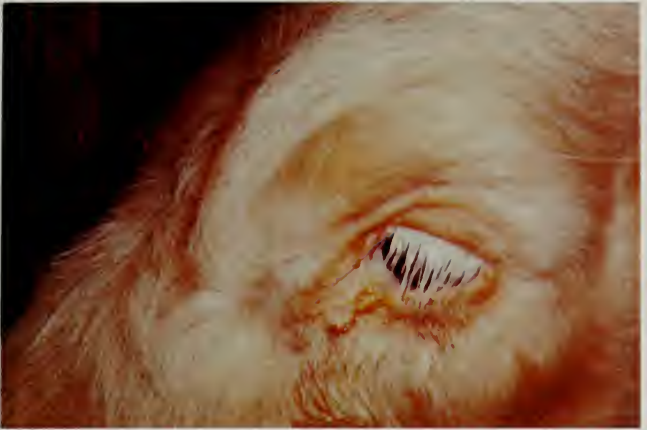
How You Can Help:

Your interest in reading this brochure is the first step in helping to keep the United States free of rinderpest. The second step is regular observation of your cattle for any changes in appearance, appetite, or behavior. Remember, rinderpest looks like infectious bovine rhinotracheitis, bovine virus diarrhea (mucosal disease complex), blue-tongue, and enzootic hemorrhagic disease of deer, so obtain a prompt and accurate diagnosis from your veterinarian if any of these diseases are suspected. Suspect animals should be isolated—and all contact animals retained on the farm—until a diagnosis is made.

Your best insurance is to "think rinderpest" when confronting a disease situation involving severe diarrhea, loss of weight, and erosions in the mouth.



Necrotic lesions on upper cheek and roof of mouth.



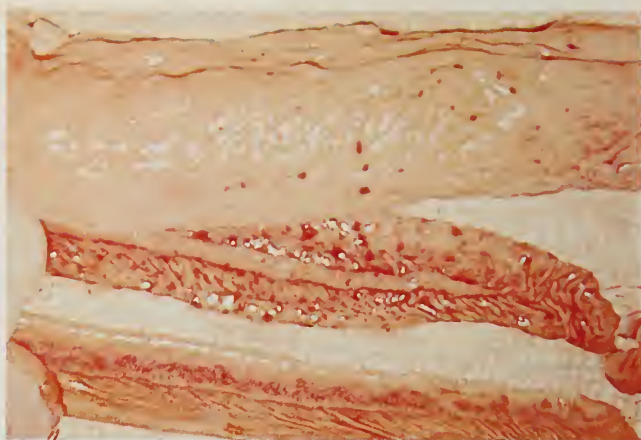
Lacrimation or tearing of an affected animal.



Inflammation of conjunctiva of eye.



Hemorrhage in the abomasum.



Punched out lesions and enlargement of Peyer's patch in the small intestine.



"Tiger" or "zebra" striping of last 18 inches (rectum) of large intestine is characteristic in rinderpest.